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OUR illustration this month represents part of the life-history of *Datana ministra*. The plate was made from a photograph of a drawing found among the unpublished plates of the late T. R. Peale, of Philadelphia.

NEW NORTH AMERICAN TACHINIDÆ.

By C. H. TYLER TOWNSEND, Las Cruces, N. Mex.

(Continued from page 81, Vol. III, No. 4)

Loewia globosa n. sp. ♂.—Eyes cinnamon-brown, thickly short hairy, edges touching in front of ocelli; frontal vitta light brown, vertex blackish; anterior pair of ocellar bristles stronger than frontal bristles, directed strongly forward, decussate; sides of front, face and cheeks silvery-white; the præ-genal area very large, brownish, encroaching on sides of face and extending narrowly to bases of antennæ; sides of face with fringe of bristles; antennæ and arista brownish, second antennal joint orange rufous, third joint one and one-half times as long as second, more or less rufous on sides; proboscis about two-thirds hight of head, slim, brownish, labella developed; palpi curved, thickened apically, brown, bristly; occiput blackish, black-hairy. Thorax and scutellum black, with a faint purplish shade, scutellum with an apical decussate and a lateral pair of macrochætæ. Abdomen shining greenish black, in some lights dark metallic-green; second segment with a median marginal pair and a weak lateral pair of macrochætæ; third with a stronger lateral pair and a median

marginal pair; anal with a submarginal row of six. Legs black, claws and pulvilli rather elongate, pulvilli whitish. Wings grayish hyaline, basal portion and wing veins yellowish; tegulæ soft brownish yellow, halteres tawny. Length of body 4.5 mm.; of wing 4 mm.

Described from one specimen; So. Florida (Robertson). This genus differs from *Ennyomma* Twns. in the closed apical cell, which terminates just before tip of wing.

ATROPHOPALPUS n. gen.

Considerably resembling *Ceratomyiella*, but differs in the character of the palpi. Belongs in Phytoinæ. Head more or less triangular in profile. Front rather prominent, narrow in ♂, about one-fifth width of head, widened before, face widening at same angle; frontal bristles in a single row, descending on sides of face to lower border of eyes; vertical and next two pairs directed backward, rest forward and inward, the descending ones downward; no orbital bristles (♂). Face receding, epistoma somewhat prominent; facial depression two-thirds width of face, not deep; facial ridges bare, except a bristle or two next vibrissæ, latter inserted at constriction of ridges about on oral margin, rather stout, decussate; sides of face narrow, bare except for the fringe of descending frontal bristles; cheeks nearly one-third eye-hight, hairy. Eyes very thinly hairy, almost bare. Antennæ as long as face, second joint not elongate, third about five times as long as second, narrow; arista thickened on basal third, microscopically pubescent, apparently only 2-jointed, basal joint short. Proboscis somewhat elongate, about as long as hight of head, not very stout, labella present; palpi very small, short filiform, terminating in a long bristle. Thorax about as wide as head; scutellum with an apical decussate, and two lateral pairs of macrochætæ. Abdomen narrower than thorax, elongate cylindro-conical, first segment not shortened; macrochætæ only marginal; hypopygium more or less exserted. Legs rather long and slender, not very bristly; claws and pulvilli of ♂ rather elongate, front ones apparently longest. Wings a little longer than abdomen, with costal spine, third vein bristly half way to small cross-vein; apical cell closed in border at tip of wing, fourth vein bent at wide angle, without stump or wrinkle, apical cross-vein very slightly concave; hind cross-vein nearly straight, rather oblique, nearer to bend of fourth vein. Type, *A. angusticornis* n. sp.

Atrophopalpus angusticornis n. sp. ♂.—Eyes light brownish; frontal vitta dark brown, narrow; sides of front, face and cheeks silvery-white, except brownish præ-genal area; antennæ grayish black, second joint more or less rufous apically, arista blackish; proboscis dark brown, palpi apparently grayish; occiput cinereous, silvery on edges, gray-hairy. Thorax silvery, with four black vittæ, scutellum silvery, clouded with blackish. Abdomen shining black, segments two to four narrowly silvery white at base, all segments very faintly silvery, anal segment light rufous; first segment with a lateral macrochæta surrounded with bristles, second with a lateral one and a median marginal pair, third with a marginal row of about six, anal with marginal row of eight. Legs black, front and middle femora faintly silvery below, pulvilli fuscous. Wings grayish hyaline, tegulæ translucent white; halteres pale brownish at base, knobs luteous. Length of body 4⅗ mm.; of wing 3⅗ mm.

Described from one specimen; So. Florida (Robertson).

Myothyria vanderwulpi n. sp. ♂ (?).—Eyes light brownish; frontal vitta blackish, narrow, one-third width of front; front hardly one-third width of head, equilateral, face widened; two orbital bristles; sides of front, face and cheeks dark cinereous, slightly silvery; antennæ and arista black, third antennal joint about two and one-half times as long as second; proboscis brownish, fleshy, not as long as hight of head; palpi brownish, testaceous at tip; occiput blackish, thinly black-hairy. Thorax black, cinereous pollinose, scutellum black. Abdomen black, bases of second to fourth segments silvery-white; first two segments with a lateral pair of macrochætæ, the second with a median marginal pair; third with a marginal row; anal with several lateral submarginal, and a median discal pair. Legs black, claws and pulvilli very short. Wings grayish hyaline, with costal spine, tegulæ nearly white, halteres blackish, tawny at base. Length of body 3⅗ mm.; of wing 3½ mm.

Described from one specimen; So. Florida (Robertson).

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ENTOMOLOGIZING IN MEXICO.

By W. S. BLATCHLEY, Terre Haute, Ind.

(Continued from page 114, Vol. III, No. 4)

Other interesting and typical tropical forms were the *Heliconias* with their brilliant colors and long and narrow wings. As many as a dozen of them were often seen fluttering about a clump of flowers, and four or five would at times be captured with a single scoop of the net. The *Neonymphas* were also well represented, two or three species being found everywhere flying close to the ground with that queer jerky flight so characteristic of the members of that genus. Among the Nymphalidæ, however, the spe-

cies of *Argynnis*, *Melitæa* and *Limenitis*, were the most common, and some of them exceedingly brilliant in color. The genus *Eudamus* was especially well represented among the Hesperidæ, *E. proteus* Linn. being most noticeable on account of its numbers, the long tails of its hind wings, and the surprising swiftness of its flight.

At Fortin, a station nine miles below Orizaba, the difference in level being 700 feet, a number of species were taken which were not found at the higher altitude. Among them was a long-beaked *Libythea*, a genus which is represented in all the eastern United States by but a single species, and a large and beautiful *Caligo*, which, at that height, was very rare, but two specimens having been seen. At a still lower level, however, it is said to be one of the commonest of species.

To the average Mexican a collector of "chinches" or "bugs," was a somewhat novel sight, and many were the curious eyes which followed my every movement. At night, especially when I set out to seek what I might find about the electric lights, I was sure to be followed by a motly crowd of all ages, sizes, sexes and conditions. They would watch me capture a specimen or two with the net and then each one would rush after the largest and finest moth to be seen and endeavor to catch it with his hands. The moths were usually taken from the sides or walls of houses near the lights. The houses were mostly of stone, plastered and whitewashed on the outside, and jut right onto the street with no yard intervening. The light, reflecting from the walls, would attract the insects and often fifty or more of them were to be seen on the sides of a single building. I usually captured the smaller moths by inverting over them a wide mouthed cyanide bottle into which they would flutter quickly, and in less than half a minute would be dead. The larger ones were captured with the net and chloroformed. Of course every specimen caught with the hands was ruined, and when the natives went after them or brought me fluttering specimens with half the scales knocked off their wings, I would shake my head and inform them as best I could that when thus captured the insects were sure to be "rote," *i.e.* broken, and therefore worthless. Then the older persons would cease trying to catch them, but it was hard work to keep the boys back when a large or showy specimen settled near them.

Oftentimes they would attract my attention to a large moth

which I had not noticed by clapping me on the shoulder and pointing to it, at the same time uttering in a whisper, as if afraid the insect would hear, the words "*Esta une grande, esta une grande, esta, esta, esta, esta,*" which were: "There is a large one; there is a large one, there, there, there." If a small one they would say "*esta chica, esta chica,*" and if a very small one, "*esta chicita, esta, esta, esta.*"

The houses have the windows very low and protected by gratings which extend out six or eight inches from the wall. The boys often aided me by climbing upon these gratings and reaching with the net a large specimen which had settled close up under the projecting eaves.

On one occasion, about twelve o'clock at night, a drunken fellow with two or three companions came along, and grabbing the handle of the net, he insisted on climbing the window grating of the most palatial residence of the town for a large brown moth which was high upon the wall. I remonstrated with him as best I could, but no policeman being near he insisted on his point, and I finally had to yield. Up he clambered, making noise enough to be heard half a square away, and I fully expected to see him shot by one of the occupants of the dwellings. However, he finally got within reaching distance of the moth, and after several ineffectual attempts, during which he came near falling, succeeded in getting it into the net, and brought it down in triumph to me. I thanked him graciously, and, getting hold of the net, quickly left the scene, although half a dozen desirable specimens were in view.

About 1200 moths, representing 160 species, were taken during my stay at Orizaba, but as yet little has been done towards mounting or classifying them, and hence nothing is known as to the number of rare forms taken. Among the larger ones were numerous species of Sphingidæ, some of which were exceedingly abundant. Of these the largest species taken was *Sphinx leucophreata?*, which expands seven inches. A number of its larvæ were taken from the trunk of a shrub which is extensively used for hedges. When discovered they were stretched out side by side on the trunk of the shrub, and were as close together as they could lie.

Four hundred Coleoptera, representing one hundred and twenty-five species, were taken in the vicinity of Orizaba. As

mentioned above, no attempt was made to take a full series of them, but only those as happened in the way were picked up. Of those taken by far the larger numbers were Chrysomelidæ, a family which is extensively represented there, almost every kind of plant having some species which feeds upon it. A *Doryphora*, very similar to *decimlineata* Say, but smaller and darker, was found feeding upon a cultivated species of *Solammi*, showing that that genus of plants is the favorite food of these beetles. Of the Carabidæ, the family most largely represented in Indiana, but half a dozen species were collected, although a person looking for them especially, could undoubtedly have found many more. The largest and most striking beetles taken were the *Dynastes* and *Xyloryctes* already mentioned, of which the latter were very common about the lights at night, though more were seen during the day; and the gigantic long-armed beetle *Acrocinus longimanus*, three specimens of which were also taken about the lights. A single male of the handsome and peculiar Scarabæid *Inca clathratus*, was also secured.

Of the Orthoptera, forty species of Acrididæ or locusts, were taken, the giant of this number being *Rhomalia auricornis* Walk., which was not found above Fortin, but was quite frequent at Cordoba. Unlike most of our species it is not found on the ground, but on tall weeds and bushes, upon whose leaves both adults and larvæ feed. Like all the larger locusts it is very clumsy in its movements being easily captured with the fingers. Locustidæ, or "Katydids," were common, especially about the lights, and some of them were of enormous size. The Blattidæ, or cockroaches, are represented in the collection by six or seven species, the most abundant ones seen being the well-known Croton bug and the Oriental cockroach (*Periplaneta orientalis* L.), both of which are cosmopolitan. The "earwigs," formerly classed under this order, but now placed by themselves under the order Dermaptera, are with us very rare insects, but in Orizaba they literally swarmed on the sides of the houses, and three or four species of them were secured.

Sixty species of Hemiptera, or "bugs" proper, were taken as opportunity offered. Leaf and tree hoppers were to be seen by thousands, and varied much in size and color. *Pachycornis torridus* Scop. and *Stiretrux anchorago* Fab., which are among the most brilliant of the Heteroptera, and so variable in color, that

each has been described under at least half a dozen names were taken in small numbers, while that pest of the market gardener, *Murgantia histrionica* Hahn. was present everywhere. *Belostoma americanum* Leidy, the "electric light bug," is becoming as well known in Orizaba since the advent of the lights as its congener, *Benacus griseus* Say, which bears the same common name, is known to the inhabitants of our northern cities. Nor can we forbear mentioning, while speaking of Hemiptera, those species of *Acanthia* which were felt on various occasions, but were difficult to capture.

If a Mexican discovers that an American or "Gringo," desires to secure any special article or group of articles the price of those articles suddenly advances one thousand per cent. "Bugs," which were quoted away below par before our advent into the city of Orizaba took an upward impetus in value each day of our stay, and every street urchin and many men began to deal in them, or rather to try and deal in them. One day the landlord informed me that a native was in the office who had "an exceedingly rare butterfly" which he wished to dispose of. I went down and found that he had a small gray moth with a silvery band across its wings. I looked at it and asked him "*quanto?*" (how much?) "*Un peso,*" (one dollar) was the answer. I did not care to purchase, but offered him a "*medio,*" six cents. He walked out with a look of disgust, carrying the precious insect with him, and that night I captured five of them from the side of our building. Another native had a large click beetle with enormous mandibles, which he asked me two dollars for. . I finally offered him fifty cents, but he evidently thought I would give more before I left the city and refused the offer, although he did not appear as if he had seen fifty cents in as many months.

After eleven days spent in collecting in the vicinity of Orizaba we left that fair city with many regrets and made our way to the town of San Andres, 4000 feet higher up the slope. The difference in the numbers and variety of insects which this ascent of 4000 feet made was remarkable. During two day's collecting about San Andres not more than half a dozen species of butterflies and as many of beetles were taken, while the other orders were as sparingly represented. As the ascent continued this number became gradually less. At a camp at 12,000 feet a half day's search was rewarded with four species of beetles which

were captured from beneath the bark of logs; one small brown butterfly, a *Chionobus?*, whose range was between 9500 and 13,000 feet, and one species of locust, a *Pezotettix*, which was there quite abundant, and a single specimen of which was afterward taken near the 14,000 feet level.

At the latter point, which was near the lower limit of snow and as high as I ascended two species of rough-backed beetles belonging to the genus *Phellopsis?*; one species of Phalangidæ, or harvestmen; the *Pezotettix* mentioned above, and three species of small-sized myriopods were found during several hour's search, the beetles and myriopods being quite common beneath the bark of logs and beneath rocks. A few half-grown specimens of a *Centhophilus*, a genus of wingless Locustidæ, were also secured. These were evidently the bulk of the species of insects found at that altitude at that season of the year, though Dr. Scoville saw at the top of the mountain, 18,000 feet, two specimens of a small white butterfly, but was unable to capture either of them.

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On the Species of ONCOCNEMIS in Colorado.

By David Bruce.

As the Noctuid genus *Oncocnemis* Lederer is not very abundantly represented in the majority of our collections, perhaps a few observations on the species I have taken in Colorado may be acceptable.

1. *O. Hayesii* Grt.—Not very rare at light and over flowers at night in central Colorado, August and September. I took two examples in July this year in western Colorado flying round flowers by day.

2. *O. Dayi* Grt.—Abundant, flying over flowers by day in South Park at 10,000 feet elevation; it has all the habits of *Plusia Snowi* and *P. Hochenwarthi*, and can scarcely be distinguished from these species until captured. I have seen it no place but at the locality named, August and September.

3. *O. fasciatus* Smith.—One beautiful example flying over flowers by day August 20th, southwest Colorado.

4. *O. tenuifascia* Smith.—Common just at timber line in South Park, flying with *Dayi* over flowers in bright sunshine; looks extremely like a *Botis* when flying, August and September.

5. *O. terminalis* Smith.—Not uncommon at Boulder and vicinity; sitting on rocks by day, and have taken several at light at Denver, August.

6. *O. levis* Grt.—Common in August at Golden City and Denver; can be found in plenty by day by examining crevices and under projections near electric lights.

7. *O. tricolor* Smith.—This beautiful species is sometimes abundant at Denver; I have picked off more than a dozen examples from a building near an electric light in one morning, August and September.

8. *O. homogena* Grt.—I met with this species in some numbers near Aspen, flying over flowers in the sunshine; have also taken a few examples at light in Denver, August.

9. *O. Glennyi* Grt.—Occurs in the greatest profusion during September and October at light in Denver City. Walls and fences near electric lights are spotted with thousands in the early morning, the moths flying off or hiding in crevices as the sunshine gets on them. This species is a positive nuisance every fall; the store windows and hallways of hotels are covered with them.

10. *O. occata* Grt.—Occasionally at sugar in Platte Cañon. I met with a few fine examples this Summer near Cañon City, flying by day over flowers, August.

11. *O. Chandleri* Grt.—Occasionally at light in the western part of the State; this year I found it common in July by beating old cedars; they were hiding under the ragged bark.

12. *O. major* Grt.—Several on buildings and in crevices of sidewalks near electric lights at Salida, July. I have also taken it flying by day.

13. *O. cibalis.*—Not common; have taken one or two every Summer near the foothills in the eastern part of the State; they start up from the herbage like *Crambodes talidiformis.*

14. *O. colorado* Smith.—Not uncommon at light in central and western Colorado in July and August.

15. *O. atricollaris* Harr.—Occasionally at light in various parts of the State, August.

16. *O. umbrifascia* Smith.—Two examples only, last July, at light in southwestern Colorado.

I have also two or three species taken this Summer, the names of which I have not yet learned; they are probably undescribed.

Notes on the LARRADÆ, by William H. Patton.

By WILLIAM J. FOX.

In the April number of ENTOMOLOGICAL NEWS, under the title "Notes on the Larradæ," Mr. Patton has made several assertions which, if not corrected, would ultimately cause much confusion, as they are entirely in error. In correcting these statements I wish to state that I do it in the best of good-will and friendliness to Mr. Patton, to whom I had written some time ago, pointing out the errors.

Liris Fab.—I am not acquainted with this genus, but according to Kohl, who must certainly be acquainted with it, the outer edge of the mandibles are without a notch; both sexes have the mandibles bidentate within, not only those of the ♀. In the original description, or in any other of this genus, no mention whatever is made of the tarsi, yet Mr. Patton states that it is "founded on a male type with peculiar tarsi."

Liris coxalis Patt. is synonymous with *Tachytes aurulenta* Fab.

Tachysphex Kohl.—This genus is characterized and distinguished from *Tachytes*, to which it is allied, by the more slender form and more feeble hairing; the anterior femora of the ♂ are notched near the base beneath; the fore tarsi ♀ having very long, flexible spines, and the pygidium being naked. It is certainly not represented in this country by *Larra analis* Fab. as an examination of that species will show.

Lyroda subita Say certainly does not belong to *Didineis*, which belongs to the Nyssonidæ. The hind femora are toothed near the apex in *Didineis*, which is not the case in *Lyroda subita*.

I am not acquainted with *Pisonitus* and *Sylaon*, so again refer to Kohl. *Pisonitus* Shuck. is a synonym of *Pison* Spin. *Sylaon* Picc. and *Bothynostethus* Kohl. differ from *Pison* in having the marginal cell appendiculate, and a pygidial area on the last dorsal segment ♀. *Bothynostethus* differs from *Sylaon* by having a notch on outer margin of mandibles.

"*Larra divisa* Pttn. is ♀ of *L. æthiops* Cress." How can this be? The type of *æthiops* is a ♀, and is distinct from *divisa* in having the pygidial area differently shaped.

COLLECTING IN THE FAR NORTH.

I.—THE ALASKAN COAST.

By H. F. WICKHAM, Iowa City, Iowa.

By request of the Editor of ENT. NEWS I place before the reader some account of a Summer trip to Alaska and that part of British Columbia lying back of it drained by the Stikine (or Stikeen) River. Although some parts of the territory are quite easy of access, the distance from all centres of trade and ordinary routes of travel have combined with the general ideas as to climate and the unattractiveness of the insect fauna, to keep entomologists from visiting them—consequently comparatively little has been done to increase our knowledge in this direction since the time of the Russian explorations. The following notes are intended simply to convey an idea as to the general character of the places visited from an entomological standpoint, but by the kindness of Dr. Horn, in giving his aid in identifying beetles, the correctness of what is placed on record relating to the Coleoptera is secured. A complete list of these insects is in preparation, and will be presented at as early a date as practicable, so that any indefiniteness of specification in this paper will be remedied.

Leaving Tacoma about the middle of June, a run of four days brought me to the first stopping-place in Alaska—the Yes Bay cannery—and as the steamer was to remain a few hours unloading freight, I went ashore to get some insects if possible. The rugged surface of the land with its heavy growth of conifers and thickets of blueberry intermixed with a vile plant known as the "devil's club" (*Fatsia horrida*) is not conducive to either ease or comfort while collecting, and the excessive dampness forms still another drawback. The ground is covered everywhere with a luxuriant carpet of moss, often many inches deep, into which the feet sink at every step. But little was found here, only a half dozen *Pterostichus castaneus*, a few Staphylinidæ, twenty or thirty little moths, a fly or two and a couple of Hymenoptera. The moths were flying around the flowers of the devil's club," and before I had taken all the whistle of the steamer called me back. Shortly after we touched at the Loring cannery, where I took nothing but one or two Scolytidæ flying around newly-cut timber.

Early the next morning we were running along the shore of Wrangel Island, which lies close to the mainland of Alaska, the

upper end being directly opposite the mouth of the Stikine River. On the seaward side, only a very few miles from the river mouth, the town of Fort Wrangel lies on a narrow strip of beach, backed by high hills covered with the usual conifers and blueberry undergrowth; close to the beach this growth is replaced by thickets of salmon-berry and thimble-berry, the fruit of both being used as food by the native and white residents, but supporting little in the way of insect life. The great nettles, taller than a man, which are plentiful in these thickets, make the task of forcing a way through them or searching the ground anything but pleasant. However, I expected to make this place my base of operations for some weeks, and so made preparations accordingly.

Investigation showed the insect fauna of the island to be by no means varied, and to present nothing remarkable as compared with other points in the North Pacific. A number of Carabidæ may be taken, mostly along the edge of the beach, just above high-tide mark; among them may be mentioned *Cychrus angusticollis*, *C. marginatus*, *Loricera* 10-*punctata*, *Nebria* sp., *Pterostichus crenicollis*, *P. vitreus*, *P. riparius*, *Bembidium funereum*, *B. flavopictum*, *B. cautum*, *Patrobus septentrionis*, *P. aterrimus*, *Platynus erasus* and *Amara littoralis*. Of the Dytiscidæ only an *Agabus* and a few specimens of *Hydroporus oblitus* were found, and these not in water, but under stones or pieces of wood in very wet places—the use of a net in pools and streams yielding nothing. Search under seaweed and other débris cast up by the sea proved much less productive than I had anticipated, very little except a few Staphylinidæ being taken here. *Trichopteryx parallela* and a species of *Ptenidium* were found sparingly under logs and chips, while *Cryptohypnus musculus* occurred in some numbers under the shingle.

Just within and along the outskirts of the brush, *Athous ferruginosus* is seen quite commonly, flying where footsteps disturb the quiet of the spot. On rolling over sticks or small logs here, which were deeply imbedded in moss and much overgrown with grass, these insects would fly around in numbers, alighting on my clothes and very easily captured—they often came from resting places near or upon the ground, running up the stems of plants until a good place was reached from which to take wing, when they would let go and fly slowly around the spot, something after the manner in which *Myodites* may be seen about golden-rods in

the States during Autumn. Occasionally *Podabrus piniphilus* may be found in the same localities as the *Athous*, but not in such large numbers. Far back in the woods but little can be found, except *Pterostichus castaneus*, and this only in small numbers, the growth of moss being so rank as to greatly obstruct search, and by it any logs that may chance to lie on the ground are soon bound down so lightly as to defy efforts to move them. *Aphodius aleutus* occurred once or twice in the first, also an *Eros* of a species not yet determined.

Experience proved it more profitable to set traps for certain kinds of beetles rather than to go after them in their almost inaccessible haunts. With an eye, therefore, to the capture of such species as live in carrion, I piled up a great heap of carcasses of birds in a little thicket a few feet from my cabin-door, every day looking them over carefully and sifting the soil on which they lay, that nothing might escape. The results were far above what I had hoped, numerous species of Staphylinidæ being thus obtained in large numbers, also many *Cercyon fulvipennis*, some *C. adumbratum*, *Choleva egena*, *Ptilium columbianum*, and occasionally other Trichopterygidæ. Taking into account the seeming dearth of Coleopterous life on the island, the number of specimens taken in this way was really surprising.

Little in the way of wood- or leaf-eating beetles was seen on the island, though careful search was made for them. A couple of specimens of *Opsimus quadrilineatus* were found, one of them under the wharf at Wrangel, the other resting on a fence, and a single dead *Phymatodes* was taken on a window. Not a single Chrysomelid was secured, and beating trees yielded only two specimens of a *Magdalis*. Two Hylobiini were taken from low sprouts. But little can be said of the insect fauna of the place as regards the other orders. Hymenoptera were scarce, Lepidoptera by no means common, and Diptera numerous only in individuals. A large species of Dragon-fly was the chief representative of the Neuroptera, while of Orthoptera there seemed to be a total lack. The few Hymenoptera that were taken were mostly Humble-bees, captured around the blossoms of white clover.

Having spent several days on the island I determined to make a trip to the mainland, and engaged, for the purpose, a white trapper and an Alaskan Indian, intending to send them after mammals while I employed my own time collecting insects. We

left Fort Wrangel early one morning, and about half past four next afternoon reached our destination—about twenty-five miles from Fort Wrangel—which was to be my stopping place for two days. Next morning I sent my men across the bay with instructions to ascend the snow-capped mountains opposite, in search of the mountain goat, and to bring back any insects that they might come across. Then, as it was raining and all vegetation was soaked, I could do little but turn over a few logs along the beach and search under seaweed for Staphylinidæ. I was rewarded by finding a *Liparocephalus*, but took little else, and filled out the day by skinning birds shot on the way down.

The night passed without interruption, except that caused by the cries of a captive baby seal which we had placed in a pen back of the camp—cries of the most homesick intonation, calculated to melt the heart even of an entomologist without babies of his own. Morning dawned clear at last and promised a good day for collecting, so I lost no time in getting out and to work, with better success in some directions than on the island. By beating I took a few *Syneta simplex*, *Corymbites caricinus*, *C. tarsalis* and *Anaspis rufa*. A number of *Anthobiums* were found and one or two examples each of *Leptalia macilenta* and *Pachyta monticola*, but this was about all of the beetles, the remainder of the catch consisting of flies, moths and a few Hymenoptera. Midges and mosquitoes were an almost intolerable nuisance, and it was quite a relief to get back to the cabin, build a "smudge" and look over the day's catch. In the evening my men came back without the goat, though they had shot one away up towards the summit of the mountain and found the difficulties in bringing down the skin and necessary parts of the skeleton so great that the attempt was abandoned. However, they brought down a *Donacia*, which they had found in a snow-bank at a considerable altitude, an *Eros* and a *Rhyncholus*, all of interest from the locality in which they were taken. Both men were so weary that they said they were too tired to pick up any of the "bugs" they came across on the way down. Our return trip took us only a single day, and next day I was on hand to resume my entomological labors at Fort Wrangel.

Leaving the Stikine River country for discussion in another paper, but two points remain to be spoken of—Hunter's Bay on Prince of Wales Island (if we may rely on the information as to

locality given by officers of the steamer), and Metlakahtla or Port Chester, a large Indian settlement under direction of a missionary. At Hunter's Bay a few hours were spent with fair success, the same general character of country obtaining as in other places spoken of though some of the species of beetles were not found elsewhere. *Pterostichus castaneus*, *P. amethystinus*, *Epuræa truncatella*, a fine Byrrhide, *Pedilophorus acuminatus*, a Scydmænid of considerable size, and a number of *Xyloterus bivittatus* were seen. At Metlakahtla the rain again interfered, but a few other species were added to my list, among them *Pterostichus validus* and *Megapenthes stigmosus*. All of the narrow coast strip as well as the islands which constitute southern Alaska consists of rocky and rugged hills with very little variety of soil or vegetation, so that an entomologist would hardly expect to find a great variety of species. Every spot seems, however, to yield something not found at others, and doubtless much that is new yet remains to be discovered. The difficulties of exploration have rendered anything more than a superficial examination out of the question, except in isolated localities, and the day is yet far distant when we shall be able to say that our knowledge of the Alaskan insect fauna approaches completeness.

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Notes on the COCCINELLIDÆ observed in San Diego Co., Cal.

By F. E. BLAISDELL, M.D.

Anisosticta seriata Melsh.—Plentiful in September. Occurring along the bay-shore in favorable localities. Large numbers are on the wing during warm sunny days; when at rest, clustered in the tops of small shrubs and in the ice-plant (*Mesembryanthemum crystallinum*).

Megilla maculata DeG.—Rare. Occurs in the eastern portion of the country, along the Colorado River.

Megilla vittigera Mann.—Quite plentiful in Summer on sedges along water courses.

Hippodamia ambigua Lec.—Common everywhere.

Hippodamia convergens.—Guér.—Abundant. Interbreeds with the preceding species; both congregating during the colder months of the year under bark on trees, and in the dead leaves

heaped about the bases of clumps of sycamores, where they can often be observed in immense numbers.

Hippodamia parenthesis Say.—Very rare. Occurs on squash vines at Poway. Identical with eastern examples in my collection.

Coctinella 9-notata Hbst.—Plentiful. Confined to the coast region; not observed in the interior—at least, fourteen years' collecting has failed to discover it at Poway (fourteen miles from coast, elevation 700 feet) and higher altitudes.

Coccinella californica Mann.—Very common. This species, besides being aphidivorous, feeds upon the buds of the wild sunflower (*Helianthus californica*). Interbreeds with the preceding species.

Coccinella sanguinea Linn.—Plentiful throughout the county.

Coccinella abdominalis Say.—Not common. Frequents citrus groves, loco-weed (*Astragalus leucopsis*), and pig-weeds (*Chenopodium*).

Psyllobora tædata Lec.—Plentiful on plants along water courses and in vineyards. Have observed them feeding upon a small aphis infesting the under surface of the grape leaf, where the beetle was also noticed in all stages of development.

Chilocorus cacti Linn.—Quite abundant in certain localities upon *Agave americana*, *Astragalus leucopsis*, and citrus and olive trees infested with the Black Scale.

Exochomus pilatei Muls.—Rare. Occasionally taken with the preceding species on *Astragalus leucopsis*.

Exochomus marginipennis Lec.—Moderately common on different flowering shrubs, especially *Prunus demissus*.

*Scymnus lophanthæ** Blais.—Vortriede's Ladybird is not widely distributed, occurring mostly on the Coronadian peninsula. In color, the elytra are a shining black, with a feeble purpurescent lustre, and not *strongly metallic* as stated in my descrption in ENT. NEWS, March number p. 51. Post-coxal arcs distinct in outline, semi-circular; outer margin feebly concave, terminating at apex of metathoracic episternum.

Scymnus marginicollis Mann.—Plentiful everywhere.

Several undetermined species of *Brachyacantha*, *Hyperaspis* and *Scymnus*.

* We are informed by the Agricultural Department at Washington that this is one of the introduced Australian species, the name of which has not yet been ascertained.—ED.

A new species of CRIORHINIA and Notes on Synonymy.

By Dr. S. W. WILLISTON, Lawrence, Kan.

Criorhinia coquilletti n. sp. ♂.—Front separated by nearly the width of the ocelli; ocellar prominence shining black; front below and the face covered with dense, light yellow pubescence and pollen, and, on the sides of the face above, with long, light yellow pile; cheeks broadly shining black. Antennæ brownish red, first joint but little longer than the second, third joint much broader than long, produced somewhat acutely above to the base of the arista. Proboscis moderately elongate. Thorax deep, shining black; on the dorsum, metallic; the color, however, is largely concealed beneath dense, long pile, which is yellow in front of the wings, both on dorsum and on the pleuræ, and black behind the wings. Abdomen deep black, shining, somewhat metallic, on the fourth segment markedly so; pile long, moderately dense, on the first three segments black, [slightly intermixed on the third], on the fourth segment yellow. Legs deep reddish brown or reddish black; the knees, the narrow base of the tibiæ, and the basal joints of the four anterior tarsi yellowish; pile black. Wings brown on the anterior and distal parts; subhyaline behind. Length 9—10 mm.

Hab.—Southern California. The specimen upon which the foregoing description is based, was sent me by my friend, Mr. D. W. Coquillett, who had recognized it as belonging to a new species. The species is closely allied to *C. lupina* Will., but differs in having the first antennal joint less elongated, in having the third joint more acute above, a shorter proboscis, and in the absence of the facial stripes, etc. I have seen but very few species in this family since the publication of my "Synopsis." Several of these, of not a little interest, will be shortly described by Mr. W. A. Snow. Since my studies of the North American forms, however, I have had the opportunity of studying nearly three hundred species from Central America, the West Indies and South America. The nomenclature of a few North American species is affected by the results of these studies, as follows:

Melanostoma stegnum Say, Journ. Acad. Phil. vi, p. 163; Compl. Wr. ii, p. 358 [*Syrphus*]; Williston, Biol. Centr.-Amer. Diptera, iii, p. 10.=*Melanostoma tigrina* Osten Sacken, Western Dipt. p. 323; Williston, Synopsis, etc., p. 47, pl. iii, fig. 8.

Melanostoma mellinum Linné, etc. I identify *M. pruinosum* Bigot as a closely allied, but distinct species.

Baccha clavata Fabricius, Ent. Syst. iv, p. 298 [*Syrphus*]; Syst. Antl. p. 298; Wiedemann, Auss. Zweifl. Ins. ii, p. 94; Schiner, Reise d. Novara,

Diptera, p. 341; Williston, Trans. Amer. Ent. Soc. xv, p. 270; Biol. Cent.-Amer. Diptera, iii, p. 33.=*Baccha babista* Walker, List, etc., iii, p. 549; Williston, Synopsis, p. 117, pl. iv, fig 9.=*Baccha facialis* Thomson, Eugen. Resa, Ins. p. 504.=*Spazigaster bacchoides* Bigot, Ann. Soc. Ent. Fr. 1883, p. 326.

Ocyptamus trigonus Wiedemann, Auss. Zweifl. Ins. ii, p. 125 [*Syrphus*]; Schiner, Reise d. Novara, Diptera, p. 346; Williston, Trans. Amer. Ent. Soc. xv, p. 265; Biol. Centr.-Amer. iii, p. 30.=*Baccha torva* Williston. Synopsis, etc., p. 124. Males which seem to be of this species have the wings hyaline.

Volucella pallens Wiedemann, Auss. Zweifl. Ins. ii, p. 204; Williston, Trans. Amer. Ent. Soc. xv, p. 275; Biol. Centr.-Amer. Diptera, iii, p. 53, =*Volucelia sexpunctata* Loew, Wien. Ent. Monatschr. v, p. 38; Centur. vi, 37; Williston, Synopsis, etc., p. 141, pl. vi, fig. 2.

Eristalis vinetorum Fabricius, etc. *Eristalis thoracica* Jaennicke is not a synonym of this species, but of *E. obsoletus* Wiedemann.

Eristalis albifrons Wiedemann, Auss. Zweifl. Ins. ii, p. 189; Roeder, Stett. Ent. Zeit. 1885, p. 341; Williston, Trans. Amer. Ent. Soc. xv, p. 283; Biol. Centr.-Amer. iii, p. 62.= *Eristalis albiceps* Macquart, Dipt. Exot. ii, p. 56; Williston, Synopsis N. Amer. Syrphidæ, p. 172.=*Eristalis seniculus* Loew, Centur. vi, p. 63.

Eristalis scutellaris Fabricius, Syst. Antl. p. 190 [*Milesia*]; Wiedemann, Auss. Zweifl. Ins. ii, p. 159; Macquart, Dipt. Exot. ii, 2, p. 41; Schiner, Novara Exped. p. 364; Williston, Trans. Amer. Ent. Soc. xv, p. 279; Biol. Centr.-Amer. iii, p. 63.=*Palpada scutellata* Macquart, Hist. Nat. Dipt. i, p. 513; Dipt. Exot. ii, 2, p. 38 [*Eristalis*].=*Eristalis fascithorax* Macquart, Dipt. Exot. 4 Suppl. p. 139.=*Doliosyrphus scutellatus* Bigot, Ann. Soc. Ent. Fr. 1883, p. 222.=*Doliosyrphus rileyi* Williston, Synopsis, p. 178, pl. viii, fig. 8. A wider acquaintance with allied species makes me disinclined to accept the genus *Doliosyrphus* Bigot.

Tropidia albistylum Macquart, is a distinct species, a specimen of which is in the National Museum.

Xylota elongata Williston, Synopsis, p. 234, is a synonym of *X. angustiventris* Loew.

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NEW JAMAICA TACHINIDÆ.—I.

By C. H. Tyler Townsend.

The following species was transmitted to me by Mr. Cockerell, Curator of the Museum, with the record that it was taken at Cinchona, Jamaica, a place which is high up in the mountains.

Pseudohystricia exilis n. sp. ♀.—Eyes brown, with some bronzy reflections, pubescent; front averaging one-third width of head, frontal vitta blackish, velvety, hardly one-fifth width of front; five posterior pairs of

frontal bristles directed backward, two orbital bristles; front, face and cheeks of a clear golden-yellow, shading to brassy or cinereous in spots on front, pile on sides of face and cheeks golden-yellow; antennæ brownish, first two joints dark, base and posterior half of third rose-rufous, third joint one and a half times as long as second; arista blackish, first two joints elongate and of equal length; proboscis black, palpi elongate, widened and enlarged toward tip, rufous-yellow, occiput brassy, thickly clothed with brassy pile. Thorax black, thinly silvery, with four narrow vittæ, the outer ones heavier and interrupted at suture; humeri and pleuræ black, very faintly silvery; scutellum deep brownish rufous, very spiny. Abdomen deep brownish rufous, with purplish reflections, densely beset everywhere, except on sides anteriorly, with spiny macrochætæ; venter with macrochætæ on median portion and on sides posteriorly. Legs black, front femora somewhat silvery on outside, tibiæ spiny, especially middle and hind pairs, claws and pulvilli a little elongate, pulvilli tawny yellowish; front tarsi not dilated. Wings brownish fuscous, veins blackish at base; tegulæ fuscous, halteres rufous. Length of body 11 mm.; of wing 9.5 mm.

Described from one specimen; Cinchona, Jamaica. Collected by Mr. W. Fawcett, Head of the Botanical Department of Jamaica.

Our ATYPIDÆ and THERAPHOSIDÆ.

By NATHAN BANKS, Washington, D. C.

These two families of spiders contain what are commonly called tarantulas, the Mygalidæ of older authors. They have four lung-sacs, the fang of the mandibles moves vertically, the legs are short and stout. The two families may be tabulated thus:

Maxillæ broadened at base, palpi lateral . . . . . **Atypidæ.**
Maxillæ not broadened at base, palpi terminal, or almost so. **Theraphosidæ.**

Of Atypidæ we have but one genus, *Atypus;* two species of which have been described from the Western States. *A. bicolor* Lucas may, if any one is fortunate enough to obtain a specimen, form another genus on account of the arrangement of the eyes. It is probably the species to which Hentz refers as the "*A. rufipes* found by Mr. Milbert." *A. bicolor* Lucas is black, with red legs; only known from "Philadelphia." *A. niger* Hentz is wholly black; from Mass., Md., D. C., Va., N. C.

The Theraphosidæ may be divided into two subfamilies:

Inner distal angle of maxillæ slightly prolonged, palpi somewhat lateral. **Eriodontinæ.**
Inner distal angle of maxillæ not prolonged, palpi terminal. **Theraphosinæ.**

The Eriodontinæ are represented by three genera:

A. S. E. the largest eyes . . . . . 2.
A. M. E. the largest eyes . . . . . **Anthrodiætus.**
2.—S. E. farther apart than M. E. . . . . **Myrmekiaphila.**
S. E. not farther apart than M. E. . . . . **Nidivalvata.**

In *Anthrodiætus* the S. E. are widely separated, the anterior row is longer than the posterior row and recurved. One species, *A. unicolor* Hentz is described from Alabama. *Myrmekiaphila* has the S. E. widely separated, but the anterior row is not longer than the posterior row, and is slightly procurved. One species, *M. foliata* Atk. is described from North Carolina. *Nidivalvata* has the S. E. close together or touching, anterior row procurved, a little shorter than the posterior row. Two species are described, both from North Carolina, by Prof. Atkinson:

S. E. and P. M. E. touching, in one group . . . . . **N. marxii.**
S. E. and P. M. E. distinctly separated . . . . . **N. angustata.**

The Theraphosinæ may be divided into two tribes:

Three claws to tarsi . . . . . **Trionchi.**
Two claws to tarsi . . . . . **Dionchi.**

The Dionchi have one genus, *Eurypelma*, in Western States, of which five species are described. These are the genuine tarantulas. As the species are extremely close, a key will not be given, but the species arranged in two series according to locality. California: *E. californica* Auss., *E. rileyii* Marx, *E. leiogaster* Auss. Southern W. S.: *E. hentzii* Girard, La., Tex., Kans.; *E. steindacherii* Auss., N. Mex. *E. hentzii* is the most common; *E. mordax* Auss. is the same as *E. hentzii* Girard.

The Trionchi are divided into two groups:

Median groove longitudinal . . . . . **Mecicobothri.**
Median groove transverse . . . . . **Aepicephali.**

Group MECICOBOTHRI.

Spinnerets four . . . . . **Brachybothrium.**
Spinnerets six . . . . . 2.
2.—Eyes about equal in size, third article of spinnerets but little longer than second . . . . . **Atypoides.**
A. M. E. much smaller than others, third article of spinnerets much longer than second . . . . . **Hexura.**

Brachybothrium is represented by two species, one *B. pacificum* Simon from Wash. State, the other *B. accentuatum* Simon from

North Carolina. *Hexura* and *Atypoides* have each one species: *H. picea* Simon from Wash. State; *A. riversi* Cambr. from Cala.

Group AEPICEPHALI.

Tibia III flattened at base	**Pachylomerus.**
Tibia III not flattened at base	2.
2.—Lip much longer than broad at base	5.
Lip at most as long as broad at base	3.
3.—Abdomen truncated behind	**Cyclocosmia.**
Abdomen rounded behind	4.
4.—Mandibles pointed in front	**Cteniza.**
Mandibles rounded in front	**Bolostromus.**
5.—Eyes crowded together in two curved parallel rows	**Madognatha.**
Eyes more separated, in two rows not parallel	**Chlosterochilus.**

Cyclocosmia truncata Hentz from Alabama. *Cteniza californica* Cambr. from California. *Bolostromus fluviatilis* Hentz from Alabama. *Maclognatha abbottii* Lucas from Georgia and "Philadelphia." *Chlosterochilus gracilis* Hentz from Alabama. *Chlosterochilus pertyii* Lucas, Ann. Ent. Soc. Fr., Second Series, Vol. III, 1845, p. 60; not Vol. VI, p. 377, as given by Marx in the Catalogue. This was described as *Actinopus* by Lucas, but the eyes do not differ in arrangement from *Ch. gracilis;* the A. S. E. are, however, much larger than the A. M. E., while in *Ch. gracilis* the A. S. E. are about equal to the A. M. E. It was described from "Amerique du Nord." Dr. Marx, in his Catalogue, also places *Pachyoscelis rufipes* and *Theragretes walkenaerii* (the male of *Sphodros abbottii* according to Walckenaer) as in our fauna. This is not the case, as may be seen from the following quotation from Lucas in his article on the subject: . . . "car l'espece que M. Walckenaer regarde comme le male du *S. abbottii* ♀ se trouve dans le meme localité que mon *Pachyloscelis rufipes*, l'un et l'sutre ont eté trouves au Brésil dans les Campos geraes."

Of *Pachylomerus* we have two species. There seems to be considerable trouble in the genus. Prof. George Atkinson described three species as new, and redescribed *P. carolinensis* Hentz, and suggested that *P. solstitialis* Hentz was the male of the same species. It is very probable that *P. carolinensis* and *P. solstitialis* are the same, though there may be a slight difference in the proportionate width of the cephalothorax. But as *P. solstitialis* comes before *P. carolinensis* in the descriptions,

and as it is a male, I think there is no doubt but what the species should be called *P. solstitialis* Hentz. Moreover, the species identified, described and figured by Prof. Atkinson as *P. carolinensis* does not agree with Hentz's figure of that species. But *P. turris* Atk. does agree with Hentz's figure of the eyes. Therefore I consider *P. turris* = *P. carolinensis* = *P. solstitialis*. I see no characters of specific value between Prof. Atkinson's *P. carabivorus*, *P. carolinensis* and *P. quadrispinosus*. The variation of width in the cephalothorax is so slight as to be of no value; the arrangement of spines and teeth on claws are not of specific importance. The males are not known. There is no great difference in the eyes. I thus write the species under one name, *P. carabivorus* Atk., at least until the males show differences in the palpal structure. The two species may be separated thus:

P. S. E. as near to A. S. E. as to P. M. E. . . . . **P. solstitialis.**
P. S. E. nearer to P. M. E. than to A. S. E. . . . . **P. carabivorus.**

P. audouinii Lucas, 1837, described from "Amerique du Nord;" if from W. S. may be one of the above species. Lucas placed it in *Actinopus;* Ausserer says it is a *Pachylomerus;* why, I do not know.

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A NEW DALMANNIA FROM CALIFORNIA.

By D. W. COQUILLETT, Los Angeles, California.

Up to the present time only two species of the Conopid genus *Dalmannia* have been reported from America north of Mexico. To these I now add a third, and present a table for identifying these three species:

1. Scutellum and humeri marked with bright yellow . . . . . 2.
   Scutellum and humeri wholly black . . . . . **vitiosa** n. sp.
2. The yellow on hind margins of abdominal segments three and four prolonged forward each side, nearly crossing the segments; cheeks of male yellow . . . . . **picta** Will.
   The yellow not prolonged forward each side; cheeks of male with a large black spot . . . . . **nigriceps** Lw.

Dalmannia vitiosa n. sp. ♂.—Front yellowish brown, darkest on the upper half, where the dark color forms two indistinct stripes; antennæ black, apex of style yellowish; face and cheeks yellow, the former with two brown median stripes; occiput black. Thorax, pleura, breast and scutellum wholly black. Abdomen black, hind margin of the second,

third and fourth segments yellow; segments three, four and five each with a median yellow stripe and a broader one each side; venter yellow, a basal triangle and sides before the apex, black. Legs yellow, apices of middle and hind femora, upper side of front femora, tibiæ, except at the apex of each, and whole of tarsi, brownish. Wings grayish hyaline; halteres brown, the knob yellow. Length 4 mm.

Los Angeles County, California. A single specimen.

The second basal and discal cells are united in each wing, but whether this is a permanent character, or simply a defect of this individual specimen, I am unable to say. In all other structural characters it agrees perfectly with *Dalmannia picta* Williston, originally described from Arizonia, but which I have collected in various parts of southern California.

NOVEL SMUGGLING.—The account of the smuggler recently arrested by the Customs authorities in this city, who had a quantity of diamonds under a porous plaster on his back, reminds me of an even more novel device that came to my knowledge some years ago. A Philadelphia physician was attacked by that most seductive craze, the collector's mania for beetles and bugs. After this had been going on for some years and the result had become one of the finest collections of Coleoptera anywhere extant, he began to find that the mad desire for very rare specimens to fill up the occasional gaps in his otherwise perfect series of creeping things was too great a drain on his exchequer. To be sure he was a bachelor, under light expenses, and already blessed with a fair inheritance. Then, too, he had built up a considerable practice in that branch of medicine which he described as "leading man at baby matinees." Still, rare bugs come high, and he could not afford the continually increasing drain. Just at this juncture some one seems to have hit upon a very novel expedient. Whether the fertile brain belonged to the doctor, or to a young friend, a scion of one of Philadelphia's oldest and proudest families, who was and is a member of a prominent house of jewelers, I never learned. However that may be, the interest of the story hinges on the fact that certain rare beetles came in from South Africa—the Kimberly diamond fields, in fact—nicely packed in raw cotton, and some of the largest of these were most unaccountably heavy. While the outer anatomy was of most interest to the doctor, who valued these rare specimens as such, the inner anatomy appeared to be of far greater interest to his friend. A careful investigation, I am told, resulted in demonstrating the fact that the added weight in these specimens was due to a certain undigested mineral substance that was found in the abdominal cavities of some of the largest specimens. Though these specimens were pronounced to be herbiferous, still when certain cutting and polishing processes were finished I heard that these mineral substances were found to be "of good color and the first water." Whether the method of thwarting the watchful Customs agents is still in use I cannot say.—*New York Town Topics.*

ENTOMOLOGICAL NEWS.

Published monthly (except July and August), by the Entomological Section of the Academy of Natural Sciences, of Philadelphia, with the endorsement of the American Entomological Society. It will contain not less than 240 pages per annum. It will maintain no free list whatever, but will leave no measure untried to make it a necessity to every student of insect life, so that its very moderate annual subscription may be considered well spent.

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PHILADELPHIA, PA., JUNE, 1892.

This number of the NEWS contains thirty-six pages.

The copy for the Elementary article arrived too late for publication in this issue.

We desire to thankfully acknowledge, from a friend and patron of science who is interested in the progress of Entomology and who desires to aid ENTOMOLOGICAL NEWS in the publication of useful information, the receipt of a generous contribution which will enable us to publish promptly much interesting material. To those who are endeavoring to make the NEWS a permanent success, and who give freely of their time and talent to that end, such liberal assistance as is given by our kind friend is very helpful and encouraging.

Notice to authors of papers for the NEWS.—In the future papers for publication in the NEWS will be limited to three pages for any one month, and those papers largely made up descriptions of species will be limited to two pages. All articles exceeding these limits, if worthy of publication, will be referred to the Publication Committee of the American Entomological Society for publication in its "Transactions."

We publish below an interesting extract from the "American Farmer," which has a direct bearing on Entomology, and shows the magnitude and importance of agricultural experimentation. We predict that in the future the interest in Entomology will be largely increased, and also the number of students of this branch of natural history, more especially as it is now being more fully recognized as a study of practical value.

The magnitude of the Agricultural Experiment Station work in the U. S.—Few persons realize the vast proportions to which agricultural experiment work has grown in this country. The chief part of the growth has been within the last five years, since the Hatch bill went into operation. By the terms of this law there are appropriated annually by the

General Government $15,000 to each State and Territory that shall accept the terms of the grant and establish and maintain an Agricultural Experiment Station. There is also established in Washington a central office, called the Office of Experiment Stations, in which the results of the station work in the various States are digested and tabulated, and which also has a consulting and advisory interest in the progress and execution of the work.

Under the act of Congress, approved March 2, 1887, known popularly as the Hatch bill, agricultural experiment stations are now in operation in all the States and Territories with the exception of Alaska, Montana and Idaho. In a few of the States more than one station has been established, so that in all 49 are now in operation. In Alabama, Connecticut, Massachusetts, New Jersey and New York, separate stations are maintained wholly or in part by State funds. The total grant of money made last year by Congress for the experimental work amounted to $728,000 for the Hatch bill stations and the office of experiment stations, and $50,000 for the sugar experiments. The amount expended in experimental work by the grass stations and entomological division is not accurately known, but reaches probably not less than $20,000, making the total expenditure by the Department of Agriculture for experimental work in round numbers $800,000. In regard to the particular amounts expended by the Department of Agriculture in direct co-operation with the experimental work in the several States, the following list will be found reliable: For entomological work—Nebraska, $600; Iowa, $600; Ohio, $1500; Michigan, $1000. For botanical work—Texas, $700; Arizona, $700; Colorado, $1000; Utah, $500; South Dakota, $500; Wyoming, $500; North Dakota, $500; New Mexico, $500; Louisiana, $750; Florida, $250; Georgia, $500; North Carolina, $500; Mississippi, $1600. In addition to this the State and private contributions to this work amount to fully $200,000, making in all the sum of $1,000,000 devoted annually to the cause of the experimental promotion of Agriculture. Five hundred persons are employed actively in this work. Among these are 71 directors, 120 chemists, 47 agriculturists, 50 horticulturists, 30 botanists, 36 entomologists, 22 veterinarians, 14 meteorologists (excluding all employed by the Weather Bureau), 4 biologists, etc. During the year 1891, excluding publications coming directly from the Department, the stations published 49 annual reports and 255 bulletins. The mailing list of the stations (exclusive of the Department lists) now contains 350,000 names. About 40,000,000 pages devoted to information on agricultural subjects were printed and distributed during the year, not counting the Department publications. This does not include the hundreds of newspapers which publish accounts of the work. It is safe to say that at least 10,000,000 of our reading people read more or less of this work every year. In addition to this add the number reached directly by the Department, and the vastness of the interests of this work, measured by the number of people directly benefitted, is at once apparent.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive items of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

To Contributors.—All contributions will be considered and passed upon at our earliest convenience, and as far as may be, will be published according to date of reception. ENTOMOLOGICAL NEWS has reached a circulation, both in numbers and circumference, as to make it necessary to put "copy" into the hands of the printer, for each number, three weeks before date of issue. This should be remembered in sending special or important matter for certain issue. Owing to low subscription rate, "extras" will be charged for, and when they are wanted, it should be so stated on the MS. along with the number desired. The receipt of all papers will be acknowledged.—ED.

Mr. E. V. BEALES, of Denver, Col., is doing a good work in trying to interest the boys and girls of his city in Entomology by means of popular articles in the *Denver Sun*. It is said that many nets are to be seen in Denver this Spring. This should stimulate others to try and make young entomologists in the same way.

Rev. C. J. S. BETHUNE, editor of the "Canadian Entomologist," spent the month of March in the Bermudas in order to get over an attack of grip. We are glad to say he has returned in good health.

BARON VON FELDER, of Vienna, has sold his famous collection of butterflies to Hon. Walter Rothschild, of London, for $25,000. The Baron, who is now seventy-eight years of age, believed that he was too old to care for his collection properly. It is said that Hon. Walter Rothschild intends to leave his collection, now the finest in the world, to the British Museum when he dies.—*Newspaper clipping*.

MISS PALMER'S "SILK WORMS."—Chambersburg, Pa., January 28th. Pretty Miss Aloysius Marguerite Palmer, formerly of this city, and whose parents still reside here, was yesterday convicted in the Federal Court at Topeka, Kan., of fraudulently obtaining $3000 from E. E. McClelland, of Topeka, claiming that she sold him silk worm eggs, though she really sold only mustard seeds. She is liable to imprisonment for from one to five years.—*Newspaper clipping*.

TRANSACTIONS of the American Entomological Society, vol. xix (1892). —Pages 89–128 inclusive, have been printed since our last issue, containing the continuation of C. H. T. Townsend's "Notes on North American Tachinidæ. Paper III."

DOES ACANTHIA PIPISTRELLI OCCUR IN NORTH AMERICA?—In ENT. NEWS, Vol. I, pp. 26–27, is a note by Mr. C. P. Gillette, stating that he has found numerous specimens of an *Acanthia* in the nests of Barn Swal-

lows, and that Mr. Ashmead had determined the species as *A. pipistrelli* (not *papistrilla*, as the name is written in ENT. NEWS). As *A. pipistrelli* does exclusively live on Bats (*Vespertilio pipistrellus* and other species) and in their nests, the American specimens must certainly belong to *A. hirundinis*, which is not uncommon in the nests of Barn Swallows in North and Central Europe. *A. pipistrelli* is a rare species, which has been found in Central Europe and once in great abundance in Sweden in an old hollow tree inhabited by bats. It is, however, very possible that both *A. pipistrelli* and *A. columbaria*, which lives in dove-cots, also occur in N. America, although they have been overlooked. Descriptions and figures of these three species are published by Jenyns in Annals of "Natural History" 1839, pp. 241–244, and by Schenck in "Entom. Nachrichten" 1877, pp. 182–183.—Dr. E. BERGROTH, Tammerfors, Finland.

FOURTH ANNUAL MEETING OF THE ASSOCIATION OF ECONOMIC ENTOMOLOGISTS.—In accordance with an action of the Association, taken at the Washington meeting, the fourth annual meeting will be held at Rochester, N. Y., two days prior to the meeting of the American Association for the Advancement of Science. All members intending to present papers are requested to forward titles to the undersigned before August 1st, in order that the program may be prepared in proper season. The proceedings of our meetings are attracting the attention of working entomologists of other countries, and it is to be hoped that members will spare no efforts to make the coming meeting even better than those which have preceded it. Owing to the continued ill-health of President Lintner, and in order to relieve him of as much labor as possible, all correspondence, unless of a nature necessitating his attention, may be addressed to the Secretary, F. M. Webster, Columbus, Ohio.

I FIND from Dr. McKnight's paper in April NEWS concerning the Lepidoptera of the Adirondacks, that the fauna of that region is very similar to ours at Franconia. I have taken there every moth of his list with these exceptions: *Lithosia candida*, *Adoneta spinuloides*, *Arzama diffusa*, *Pseudanthrœcia coracias*, *Pityolita pedipalalis*, *Tortricodes bifidalis*, and perphaps three or four species of *Agrotis*, *Tæniocampa* and *Hadena*, as these last are not yet fully identified in my collection. Of *Lophopteryx elegans* Strk. I have a fine pair, male and female. They were taken at light in June, 1886, and were named for me by Mr. Hy. Edwards. Like Mr. McKnight's specimen, mine are suffused with brown from base to subterminal space. In other respects they answer to description of *Notodonta simplaria* Hy. Edw.—ANNIE TRUMBULL SLOSSON.

CAPTURING BEMBIDIUM AND OTHER SMALL COLEOPTERA.—It may prove a help to some of our numerous Coleopterists to know how to easily collect these active little beetles which are so common along the shores of lakes and rivers. Is there a collector who has not endeavored to pick them up between his (her?) thumb and forefinger and transfer the specimens to the cyanide or alcohol bottle, only to find them *non est* just as

he supposes they are safely inside. Here is a method that worked very successfully with me while at Chautauqua, N. Y., during July and August of last Summer. Procure a two-drachm vial one-quarter full of chloroform or ether; a larger bottle containing alcohol and a penny camel's-hair brush. Now, having found a locality where the beetles are plenty, drop the brush in the ether and apply it to the specimens wanted. It is surprising to see how quickly they are put to sleep. Almost immediately they may be transferred to the alcohol bottle on the tip of the brush and you are ready for more. In this manner hundreds can be taken within a short time, and I am sure it would work admirably with the insects of other orders besides Coleoptera, especially where the species are minute, but too quick to take in the usual manner. Try it.—LEE B. WALTON, Kenka College, N. Y.

AILANTHUS FOLIAGE AND THE ROSE-BEETLE.—Concerning Professor Troop's note in the May number of ENTOMOLOGICAL NEWS, the New Jersey experience has been that the insect favors the blossom in preference to the leaves, which are little eaten. With us the *Ailanthus* is known as the "tallow tree," and the observation that dead beetles in abundance were found under the trees, led to the experiment with decoctions of the blossoms. The secret of the effect observed is in the word "later," that is, only late in the season the worn out specimens feed on *Ailanthus* and die naturally. I have seen the ground beneath a chestnut tree strewn in the same way; but all specimens were old, and had died of some senile weakness rather than from any poison contained in the food. The fox glove only seems to act as a poison on the virile insect, and this used as a decoction acted too slowly to be effective in protecting vineyards. Yet, it may be well to try a decoction of *Ailanthus* foliage. Finally, a printer's error makes it Bulletin "32" instead of 82.—Prof. J. B. SMITH.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of specimens to be unlimited for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Exotic species named only by special arrangement with the Editor, who should be consulted before specimens are sent. Send a 2 cent stamp with all insects for return of names. Before sending insects for identification, read page 41, Vol. III. Address all packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

Insects have been named for F. D. Twogood, D. G. Cox, D. B. Young, Charles U. Clark, J. S. Hine, W. T. Davis, M. V. Slingerland, J. H. Bomberger, C. H. T. Townsend, Henry Bird, C. M. Weed.

Entomological Literature.

INDIAN MUSEUM NOTES, II. Calcutta, 1891.—No. 1. (1 pl.) Economic Entomology: Miscellaneous Notes, E. C. Cotes, figs. A new species of Tineidæ,* Lord Walsingham, figs. The Baluchistan Melon Fly,* J. M. F. Bigot. American blight, E. T. Atkinson. Descriptions of new Coccidæ,* W. M. Maskell. A Darjiling Sal pest, G. C. Dudgeon. A new Psychid injurious to Sal,* F. Moore.—No. 2. The wild silk insects of India, E. C. Cotes, 14 pls.—No. 3. On white insect wax in India, E. C. Cotes, 1 pl.—No. 4. The locusts of Bengal, Madras, Assam and Bombay, id, 1 pl. —No. 5. Methods adopted in Tunis for destroying locusts, R. Drummond-Hay.

ANNALS AND MAGAZINE OF NATURAL HISTORY (6), ix, 52, London, April, 1892.—Description of a new genus and some new species of Heterocera from Central America, H. Druce. Descriptions of new genera and species of Pyralidæ contained in the British Museum collection,*† W. Warren. On some undescribed Cicadidæ, with synonymical notes,*† W. L. Distant.

THE IRISH NATURALIST, I, 1, Dublin, April, 1892. Edited by George H. Carpenter and Lloyd Praeger.—The Coleoptera of the Armagh district, Rev. W. F. Johnson.

LE NATURALISTE, Paris, April 1, and May 1, 1892.--Cabbage worms, P. Chretien, figs. Dichotomous tables for determining the European species of *Colias* (cont.), K. Bramson. Description of new Lepidoptera,* P. Dognin. On difference in development in Coleoptera, L. Planet, figs.

HARDWICKE'S SCIENCE GOSSIP, London, April, 1892.—A few remarks on our commonest spiders, K. H. Jones. Secreting glands in the feet of flies, W. Jenkinson, figs.

WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION, Bull. No. 21, Charleston, W. Va., 1892.—Methods of dealing with injurious insects, A. D. Hopkins.

COMPTE RENDU, L'ACADEMIE DES SCIENCES, Paris, March 28, 1892.—On the mode of articulation of the abdominal rings (zigzag articulation) in Hymenoptera, G. Carlet.

COMPTE RENDU, SOCIETE DE BIOLOGIE, Paris, April 1, 1892.—Origin of the achromatic nuclear spindle in the seminal cells of *Scolopendra*, A. Prenant. The alar nerve in some apterous Coleoptera, A. Binet.—April 30th. Comparative researches on the organization of the brain in the principal groups of Arthropods, H. Viallanes. The nerve of the balancer in some Diptera, A. Binet.

* Contains new species other than North American. † Contains new genera.

BULLETIN DE L'ACADEMIE ROYALE DE BELGIQUE (3), xxiii, 2, Brussels, 1892.—Protective resemblance in the animal kingdom, F. Plateau.

JOURNAL OF THE TRINIDAD FIELD NATURALISTS' CLUB, I, 1, Port-of-Spain, April, 1892.—This is the first number of a new journal issued under the direction of a publication committee consisting of Henry Caracciolo, Esq., president, Prof. P. Carmody, F. I. C., Syl. Devenish, Esq., M. A., and Mr. R. R. Mole. The journal has for its object to keep those members of the Club in Europe, America, Venezuela, and throughout Trinidad *en rapport* with what the Club accomplishes. One of its special features will be Economic Entomology. Mr. Caracciolo is a valued correspondent of the NEWS, and we wish him and his colleagues success in their new undertaking.

SOCIETE ENTOMOLOGIQUE DE BELGIQUE, Compte Rendu, March 5, 1892.—The African Gomphina,*† E. de Selys-Longchamps. Insects of western Bengal: xv, Coprophagous Lamellicornia, H. von Schoenfeldt; xvi, Hydrocanthari,* Dr. M. Regimbart; xvii, List of a collection of Lepidoptera, Dr. H. Robbe. Lepidoptera from the Congo,* id. Materials for a study of the Tabanidæ of Belgium, L. Coucke.

OREGON AGRICULTURAL EXPERIMENT STATION, Bull. No. 18, Corvallis, Ore., 1892.—Economic Entomology, F. L. Washburn.

JOURNAL OF THE HORTICULTURAL SOCIETY, Columbus, Ohio, December, 1891.—Insect parasites, F. M. Webster, figs.

ENTOMOLOGISCHE NACHRICHTEN, xviii, 6, Berlin, March, 1892.—*Brachyta bifasciata* Oliv. v. *caucasica*, C. Rost. List of Lucanoidæ, Scarabeidæ, Buprestidæ and Cerambycidæ collected near Nienghali in South China,* A. F. Nonfried.—7, 8, April, 1892. A new variety of *Lycæna* from Russia,* L. Krulikowsky. Sawfly studies,* Dr. Kriechbaumer. A new *Psilomastax*, id. On *Tryphon punctus* Grav., R. v. Stein. Contributions to the Coleopterous fauna of Africa and Madagascar,* A. F. Nonfried. Preliminary descriptions of three new Lepidoptera from Bismarckburg in Togoland, German West Africa,* Dr. F. Karsch.

NATURE, London, April 7, 1892.—On insect colors II, F. H. P. Coste. —April 21, 1892. Pigments of Lepidoptera, F. G. Hopkins.

LEPIDOPTERA INDICA, by F. Moore, London: L. Reeve & Co., 1892. Pt. ix, pp. 177–208, pls. 65–71.

ZOOLOGISCHER ANZEIGER, Leipzig, April 11, 1892.—The development of the coxal gland in *Phalangium*, J. Lebedinsky, figs. New observations on symbiosis between Ants and Acacias, Dr. C. Keller. The Acacia-Crematogaster by Prof. Keller from Somaliland,* A. Forel.—April 25th. Labial palps of Hemiptera, Dr. N. Leon, fig.—May 2d. Systematic list

* Contains new species other than North American. † Contains new genera.

of the Canarian Dermaptera and Orthoptera, with diagnoses of new genera and species,*† Dr. H. Kraus.

ZEITSCHRIFT FUR WISSENSCHAFTLICHE ZOOLOGIE, liii, 4, Leipzig, April 5, 1892.—On the phylogeny and ontogeny of the wing-veins of butterflies, Dr. A. Spuler, 2 pls.

THE AMERICAN NATURALIST, Phila., March, 1892.—Descriptions of new North American Bees, C. Robertson.

THE BRITISH NATURALIST, London, May, 1892.—The secondary sexual characters of the British Coleoptera, J. W. Ellis. Local lists, etc.

BERLINER ENTOMOLOGISCHE ZEITSCHRIFT, xxxvi, 2, Berlin, March, 1892.—New African, Central American and East Asiatic Melolonthidæ and Rutelidæ,* A. F. Nonfried. To the knowledge of the willow gall-flies,* J. J. Kieffer, 1 pl., figs. Communications on gall-flies,* id., figs. Arachnida from Ceylon and Minikoy collected by Drs. P. and F. Sarasin,*† Dr. F. Karsch, 3 pls. Second notice on the Apiocerina, C. R. Osten Sacken. *Arota rosaura* Karsch, Dr. F. Karsch, fig. Review of the Locustodeæ collected by Dr. Paul Preuss at the Barombi Station in Cameroons,*† id., figs. List of the Rutelidæ described after the publication of the Munich Catalogue, and Additions to the same, A. F. Nonfried. Further contributions to the beetle fauna of southern Asia and New Guinea,* id. On gall-fly larvæ, E. H. Ruebsaamen, 1 pl. New gall-flies and galls,* id. Synopsis of the described genera and species of the Blepharocediæ, C. R. Osten Sacken. On the Chætotaxy of *Cacoxenus indagator* Lw., id. Synonymy of *Antocha* O. S. and *Orimargula* Mik., id. Additions and corrections to the catalogue of the described species of South American Asilidæ by S. W. Williston in the Trans. Ent. Soc. xviii, 1891, id. New Rhopalocera,*† E. G. Honrath, 1 pl. Little-known butterflies, id. A new *Notodonta*,* id. A local variety of *Biston hirtarius*, H. Heymons. Two new Chinese dragonflies of the family Calopterygidæ,* Dr. F. Karsch. Results of the anatomical research on a lateral hybrid of *Smerinthus populi* L. with some general considerations, H. Tetens, 1 pl. figs. *Epinephele lithonus* var. *mincki*, T. Seebold.

REVUE D'ENTOMOLOGIE, CAEN, x, pp. 199–236.—Description of a new species of *Tropideres*,* Fr. Guillebeau. Contributions to the study of the Pentatomidæ,* Dr. E. Bergroth. Third note on the genus *Phaleria*, C. L. Rey.

THE ENTOMOLOGIST'S RECORD, London, April 15, 1892.—The genus *Acronycta* and its allies, Dr. T. A. Chapman. Ammonia, verdigris and black pins, W. H. Harwood, J. W. Tutt, A. Robinson.

INSECT LIFE, iv, 7 and 8, Washington, April, 1892.—The potato-tuber moth (*Lita solanella* Bd.), Eds., figs. A genus of *Mantis* egg-parasites,

* Contains new species other than North American. † Contains new genera.

id., figs. Notes on the grain *Toxoptera*, F. M. Webster. The larger digger-wasp, C. V. Riley, figs. The habits of *Elasmus*, L. O. Howard, figs. Bees of great value to fruit and seed growers, F. Benton. Some bred West Virginia Braconidæ, A. D. Hopkins. Notes on the habits of some California Coleoptera, D. W. Coquillett. Early published references to some of our injurious insects, F. M. Webster. The color of a host and its relation to parasitism, C. W. Stiles and A. Hassall. The usual numerous notes.

VERHANDLUNGEN DER K. K. ZOOL.-BOT. GESELLSCHAFT IN WIEN, xlii, 1, April, 1892.—On the so-called "stand still stage" in the development of Oestrid-larvæ, Dr. F. Brauer. Four new species of Hymenoptera,* Dr. R. Cobelli. Communications on gall-flies,* E. H. Ruebsaamen, 1 pl. figs. The Austrian species of the genus *Hilara* Melg.,* Prof. G. Strobl.

PROCEEDINGS OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 1892, pt. 1, January–March.—The spider fauna of the Upper Cayuga Lake basin, N. Banks, 5 pls. *Drexelia*, a new genus of spiders, Rev. H. C. McCook, D. D. Greenland Lepidoptera, H. Skinner, M. D., and L. W. Mengel.

TRANSACTIONS OF THE ENTOMOLOGICAL SOCIETY OF LONDON, 1892, pt. 1, March, 1892.—New species of Heterocera from the Khasia Hills,*† ii, Col. C. Swinhoe, 1 pl. Additional notes and observations on the life-history of *Atypus piceus*, F. Enock. Notes on *Lycæna* (recte *Thecla*) *rhymnus*, *tengstrœmii* and *pretiosa*, G. T. Bethune-Baker, 1 pl. The effects of artificial temperature on the coloring of several species of Lepidoptera, with an account of some experiments on the effects of light, F. Merrifield. On variation in the color of cocoons of *Eriogaster lanestris* and *Saturnia carpini*, W. Bateson. On the classification of the Geometrina of the European fauna,† E. Meyrick, 1 pl.

ARCHIVES DE PHYSIOLOGIE NORMALE ET PATHLOGIQUE (2), iv, 2, Paris, April, 1892.—The intermediary body of Fleming in the seminal cells of *Scolopendra* and *Lithobius*, A. Prenant, 1 pl.

ZOOLOGISCHE JAHRBUCHER, vi, 2, Jena, March 30, 1892.—The tree whiting, *Aporia crataegi* Hb., Dr. K. Eckstein. *Tegonotus*, a new Phytoptid genus,* Dr. A. Nalepa, 1 pl.

BOLLETINO DELLA SOCIETA ROMANA PER GLI STUDI ZOOLOGICI, I, 1 and 2, Rome, 1892.—On species of Hemiptera of the R. Museo Zoologico of Rome, Dr. C. de Fiore.

TRANSACTIONS OF THE ACADEMY OF SCIENCE OF ST. LOUIS, v, 3-4, 1892.—Transformations of a Carabid (*Plochionus timidus*) and observations on a Coccinellid enemy of the red spider, J. C. Duffey.

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* Contains new species other than North American. † Contains new genera.

CANADIAN ENTOMOLOGIST, London, Ont., May, 1892.—Miscellaneous notes on butterflies, larvæ, etc., W. H. Edwards. Two distinguished settlers, W. H. Harrington. New North American Homoptera, iv, E. P. Van Duzee. Packing insects for transportation, H. F. Wickham. Notes on North American Hesperidæ, E. M. Aaron. New North American Microlepidoptera, Prof. C. H. Fernald. Notes and descriptions of Bombylidæ, D. W. Coquillett. A Sarcophagid parasite of *Cimbex americana*, C. H. T. Townsend. Ovipositing in the genus *Argynnis*, H. Skinner. Notes on *Melittia ceto* Westw., J. B. Smith. A new *Ischalia* from Vancouver Island, W. H. Harrington. Obituary of Abbe Provancher, id.

CANADIAN RECORD OF SCIENCE, v, 1, Montreal, January, 1892.—List of Coleoptera collected in the vicinity of St. Jerome, Que., J. F. Hausen.

NOVA ACTA ACADEMIÆ CAES. LEOP.-CAROL. GERMANICÆ NATURÆ CURIOSORUM, lv, Halle, 1891.—New gall mites,* Dr. A. Nalepa, 4 pls.

BOLLETINO DEI MUSEI DI ZOOLOGIA ED ANATOMIA COMPARATA D. R. UNIVERSITA DI TORINO, No. 115, March 9, 1892.—On the variability of the metasternal apophysis of *Dytiscus marginalis* L., A. Griffini, figs.—116, March 15. On the parasitism of a larva of *Aricia* in a *Carabus*, Dr. E. Giglio-Tos.—117, March 18. A new genus of Syrphidæ, id.—118, March 24. On two genera of Syrphidæ *Rhopalosyrphus* and *Omegasyrphus*, id.

ANALES DE LA SOCIEDAD CIENTIFICA ARGENTINA, xxxiii, 2, 3, Buenos Ayres, February, March, 1892.—New Hemiptera of the Argentine and Uruguayan faunas (cont.),* Dr. C. Berg. Argentine Dipterology, Syrphidæ (cont.), F. L. Arribalzaga.

THE ENTOMOLOGIST, London, May, 1892.—Note on generic characters in the Noctuidæ, J. B. Smith. On some Macro-Lepidoptera collected at Rannoch in 1891, R. Adkin. Notes on British Lepidoptera, the genus *Melanippe* (cont.), R. South. Preliminary list of the insect fauna of Middlesex (cont.), T. D. A. Cockerell. Green and brown pupæ of *Papilio*, F. W. Frohawk, F. P. Bedford.

BULLETIN OF THE OHIO AGRICULTURAL EXPERIMENT STATION (2), v, 4, Columbus, Ohio, April, 1892.—Insects which burrow in the stem of wheat, F. M. Webster.

THE ENTOMOLOGIST'S MONTHLY MAGAZINE, London, May, 1892.—Our Rush-feeding *Coleophoræ*,* J. H. Wood. Further notes on *Eupithecia extensaria*, G. T. Porritt. On a new *Onthophilus* from Mexico, G. Lewis. Annotated list of British Tachiniidæ (cont.), R. H. Meade. The butterflies of Rawal Pindi and the Murree Hills, Punjab (cont.), N. Manders. On new or little-known Coccidæ, chiefly English–2,* R. Newstead, 1 pl.

* Contains new species other than North American.

SEVENTH REPORT on the injurious and other insects of the State of New York by J. A. Lintner, Ph. D., State Entomologist, Albany, 1892. Pp. 200–404, 40 figs.

BULLETIN DE LA SOCIETE VAUDOISE DES SCIENCES NATURELLES (3), xxvii, Lausanne, February, 1892.—Origin of the existing Ant fauna of Europe, C. Emery.

PROCEEDINGS OF THE ZOOLOGICAL SOCIETY OF LONDON, 1891, pt. 4, April 1, 1892.—On the Micro-Lepidoptera of the West Indies, Lord Walsingham, 1 pl. On the spiders of the island of St. Vincent, E. Simon, 1 pl. Descriptions of new butterflies collected by Mr. F. J. Jackson, F. Z. S., in British East Africa during his recent expedition, II, E. M. Sharpe, 1 pl. On the association of Gamasids* with Ants, A. D. Michael, 2 pls.

TRANSACTIONS AND PROCEEDINGS AND REPORT OF THE ROYAL SOCIETY OF SOUTH AUSTRALIA, xiv, 2, Adelaide, December, 1891.—Further notes on Australian Coleoptera, with descriptions of new genera and species, Rev. T. Blackburn.

NEW SPECIES OF NORTH AMERICAN INSECTS DESCRIBED IN THE PRECEDING LITERATURE.

LEPIDOPTERA.

Aegeria armasata Druce, Ann. Mag. N. H. (6), ix, p. 275, *Ae. mardia* p. 275, *Melitta beckeri* p. 276, Durango, Mex. *Metosamia* (n. g. Saturniidæ), p. 276, *M. godmani*, p. 277, Oaxaca, Mex. *Telea aurelia*, *Phassus marcius*, p. 278, Durango.

Pyralidæ: *Sericoplaga* n. gen. Warren, Ann. Mag. N. H. (6), ix, p. 295. *S. externalis*, p. 296, Tex.

Anarta besla, Skinner and Mengel, Proc. Acad. Phila., 1892, p. 158; *Glaucopteryx immaculata*, p. 159, Greenland.

Argynnis oweni, Edwards, Can. Ent. xxiv, p. 105, Cal. *A. cornelia*, 106, Col.

Teras comandrana Fernald, Can. Ent. xxiv, p. 121, Mass., Pa., Tex. *Cacœcia magnoliana*, p. 121, N. Y. *Pyrausta magdalena*, p. 122, Tex., Fla. *Coleophora fletcherella*, p. 122, Ont., N. Y.

Four n. gen. 8 n. sp. Pterophoridæ, 4 n. gen. 31 n. sp. Tineidæ, Walsingham, Proc. Zool. Soc. Lond., 1891, pp. 492–549, West Indies.

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* Contains new species other than North American.

DIPTERA.

Sarcophaga helicis Townsend, Psyche vi, p. 221, Ohio. *S. imbicis* Townsend, Can. Ent. xxiv, p. 126, S. Dak.

Exoprosopa grata, Coquillett, Can. Ent. xxiv, p. 124, Cal., Wash. *Geron fasciola*, p. 125; *G. capax*, p. 126, Cal.

Camerania n. gen. Syrphidæ, Giglio-Tos, Bull. Mus. Zool. Anat. Comp. Univ. Torino, No. 117, for *Temnocera megacephala?* Loew.

Blepharipeza rufescens Townsend, Trans. Am. Ent. Soc. xix, p. 90, Md. *Hystricia aldrichi*, p. 91, S. Dak. *Atropharista* n. gen. Tachinidæ, p. 92; *A. jurinoides*, p. 92, S. Dak. *Echinomyia dakotensis*, p. 94, S. Dak. *Tachinomyia* n. gen. Tachinidæ, p. 96; *T. robusta*, p. 96.

HYMENOPTERA.

Eleven n. sp. *Halictus*, 1 n. sp. *Andrena*, 1 n. sp. *Calliopsis*, 1 n. sp. *Melissodes*, Robertson, Amer. Nat. xxvi, pp. 267–274, U. S.

Ceropales cressoni Fox, Trans. Am. Ent. Soc. xix, p. 58, Neb., Wash.

HEMIPTERA.

Fourteen n. sp. *Phlepsius* Van Duzee, Trans. Am. Ent. Soc. xix, pp. 63–82, U. S.

Dendrocoris fruticola Bergroth, Rev. d'Ent. x, p. 228, Fla.

Gnathodus impictus, *abdominalis*, Van Duzee, Can. Ent. xxiv, p. 113, N. J. *Athysanus comma*, p. 114, Ia.; *A. bicolor*, p. 114, Kan., Miss.; *A. obtusus*, p. 115, Miss. *Deltocephalus flavocostatus*, p. 116, Miss.

COLEOPTERA.

Isonychus prasinus Nonfried, Berl. Ent. Zeit. xxxvi, p. 223; *Ceraspis elegans*, p. 223; *C. imitatrix*, p. 224; *Epectinaspis honduræ*, p. 231; *Phyllopertha latitarsis*, p. 233; *P. sericeo-micans*, p. 233, Honduras.

Ischalia vancouverensis Harrington, Can. Ent. xxiv, p. 132, Vanc. Is.

Onthophilus julii Lewis, Ent. Mo. Mag. (2), II, p. 124, Mex.

ARANEINA.

One hundred and fourteen n. sp., Banks, Proc. Acad. Nat. Sci. Phila., 1892, pp. 11–81, 5 pls.

Drexelia n. gen. for *Epeira directa* Hentz, McCook, id., p. 127.

Fourteen n. gen. 31 n. sp. Simon, Proc. Zool. Soc. Lond. 1891, pp. 549–575, St. Vincent.

Doings of Societies.

A MEETING OF THE ENTOMOLOGICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA was held April 28th Meeting called to order at 8.20 P. M. In the absence of the director Mr. James Ridings was called to preside. Members present: Ridings, G. B. Cresson, Liebeck, Skinner, Laurent. Associates: Calvert, Fox, Dr. Castle. Mr. Henry Bird, of Rye, N. Y., presented two specimens of *Gortyna inquæsita*. Four specimens of Hymenoptera were presented by Mrs. Annie Trumbull Slosson, including an undescribed species from Florida. Mr. Calvert presented a paper for publication in the "Transactions" of the American Entomological Society, which refers to material (Odonata) collected by the U. S. Eclipse Expedition to the Congo and by Dr. W. L. Abbott at Zanzibar and in the Kalimanjaro region. Inasmuch as the paper, in its entirety presented to the U. S. National Museum for publication, would be long in coming out he had, by permission from Dr. Riley, presented an abstract to night. Mr. Calvert reviewed the contents of the paper and made drawings on the black-board to illustrate points in the neuration of the old world genus *Orthetrum*. The characters of some of the species were dwelt on at length. Mr. Calvert also exhibited a specimen of *Pantala hymenæa* Say, which had been obtained from Mr. C. W. Johnson, to whom it had been presented by Mr. H. D. Coyle, a park guard, who had captured it in Fairmount Park.

HENRY SKINNER, *Recorder*.

ENTOMOLOGICAL SOCIETY OF WASHINGTON.—The seventy-ninth regular meeting was held March 3, 1892, at the residence of Mr. E. A. Schwarz. Mr. Wm. Ross Harris, of Texas, was elected a corresponding member of the Society. Dr. Stiles gave a talk on the "Histology of Ticks." He made some blackboard sketches and exhibited a number of slides illustrating the subject. He dwelt especially on the cuticular tissue, alimentary canal, stigma, excretory organs and glands of the head. Discussed by Dr. Marx. Dr. Theo. Gill presented a paper on "The Larva of Insects as an intercalated Stage." He quoted and criticised certain statements in Agassiz, "Class. of Animals from Embry. Data." From these criticisms he argued to show that the larva of insects was an added or intercalated stage. He had prepared a table giving the distribution of fossil insects. This showed that the Orthopteroid, Neuropteroid, Hemipteroid and Coleopteroid insects were not only the insects of the Palæozoic, but also the prevailing insect types of the Mesozoic age. The Diptera, Lepidoptera and Hymenoptera, which have a larva or caterpillar stage, were later developments. Discussed by Messrs. Ashmead, Banks and Gill.

NATHAN BANKS, *Recording Secretary*.

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